

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 85964/13143/01	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/GB2004/001470	International filing date (day/month/year) 02/04/2004	(Earliest) Priority Date (day/month/year) 05/04/2003
Applicant EASTMAN KODAK COMPANY		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

a. the figure of the **drawings** to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☒ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB2004/001470

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C08J9/04 C08J9/28 C08J9/30 C08J9/32 B41M5/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B41M C08J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 296 210 A (ZIMMERMANN WOLFGANG ET AL) 20 October 1981 (1981-10-20) column 3, line 16 column 3; example 1	1,6-8, 10-12
X	US 5 128 313 A (AONO TOSHIAKI) 7 July 1992 (1992-07-07) column 9, lines 3-31	1,6-8, 10-12
X	US 5 382 285 A (MORRISON ROBERT L) 17 January 1995 (1995-01-17) column 6, lines 19,20 column 6; example 1	1,2,6-8, 10,12
X	WO 02/26872 A (BASF AG ; BAUMGARTL HORST (DE); HERFERT NORBERT (DE); HAEHNLE HANS JOA) 4 April 2002 (2002-04-04) page 23, lines 25-39	1,3,6,7, 10-12,15

☐

Further documents are listed in the continuation of box C.

☒

Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

20 July 2004

Date of mailing of the international search report

28/07/2004

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/001470

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4296210	A	20-10-1981	DE	2948508 A1	04-06-1981
			EP	0031040 A2	01-07-1981
			JP	56088439 A	17-07-1981
US 5128313	A	07-07-1992	JP	2277692 A	14-11-1990
US 5382285	A	17-01-1995	US	5360828 A	01-11-1994
WO 0226872	A	04-04-2002	DE	10047719 A1	11-04-2002
			WO	0226872 A1	04-04-2002
			EP	1325063 A1	09-07-2003
			JP	2004510042 T	02-04-2004
			US	2004039074 A1	26-02-2004

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/001470

International filing date (day/month/year)
02.04.2004

Priority date (day/month/year)
05.04.2003

International Patent Classification (IPC) or both national classification and IPC
C08J9/04, C08J9/28, C08J9/30, C08J9/32, B41M5/00

Applicant
EASTMAN KODAK COMPANY

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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10/551916

JC20 Rec'd PCT/PTO 05 OCT 2005

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/GB2004/001470

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/001470

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	4-5, 9, 13-14
	No: Claims	1-3, 6-8, 10-12, 15
Inventive step (IS)	Yes: Claims	
	No: Claims	4-5, 9, 13-14
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V.

1. The following documents are referred to in this communication:

D1: US 4 296 210

D2: US 5 128 313

D3: US 5 382 285

D4: WO 02/26872

2. Clarity (Art. 6 PCT):

The statement "*treating said foamed hydrophilic polymer solution with sufficient energy and for a sufficiently short time that a polymer foam having an open-cell structure is formed*" tries to define the subject-matter in terms of the result to be achieved. In this instance the use of such a formulation renders the claim unclear in scope and is not justified by the disclosed means of achieving the desired result. Claim 1 therefore does not satisfy the requirements of Art. 6 PCT, see also Guidelines C-III, 4.7.

3. Novelty and inventive step (Art. 33(2) and (3) PCT):

D1, Example 1 discloses the preparation of a material comprising the following steps:

- preparing a solution of polyvinyl alcohol, i.e. a hydrophilic polymer solution;
- high shear stirring said solution such that air, which is a physical blowing agent, is entrained in the solution forming bubbles therein;
- pouring the mixture in a mold, i.e. in a substrate;
- heating said substrate for 4 hours.

The dried shaped articles of D1 have an open-cell structure (see D1, column 3, line 16). Hence, the subject-matter of present claims 1, 6-8 and 10-12 is not novel over D1.

D2 discloses an image receiving material comprising a porous dye diffusion-preventing layer preferably made from gelatin. Said porous layer can be formed by the methods as defined in present claims 1-2, 6-8 and 10-11 (see column 9, lines 3-31).

Consequently, the subject-matter of present claims 1-2, 6-8 and 10-12 is not novel over D2.

D3 discloses foamed materials having an open-cell structure (see column 6, lines 19-20). In D3, Example 1, agar and gelatin are dissolved in hot water. This solution is mixed with

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

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a surface-active agent and p-xylene, emulsified in a high-speed blender and then poured into a mold. The gel is frozen and then freeze-dried, which is cited in the present application as a suitable way of *treating said foamed hydrophilic polymer solution with sufficient energy and for a sufficiently short time that a polymer foam having an open-cell structure is formed* (see the present application from page 5, line 24 to page 6, line 9). Consequently, the subject-matter of present claims 1-2, 6-8 and 10-12 is not novel over D3.

D4 relates to open-celled foams and discloses the preparation of a hydrophilic foam comprising the following steps (see D4, page 23, lines 25-39):

- dissolution of a melamine-formaldehyde precondensate in water;
- admixture of the resulting solution with formic acid, a surfactant and pentane (physical blowing agent);
- vigorous stirring;
- foaming by irradiation with microwave energy;
- heating.

The subject-matter of present claims 1, 3, 6, 7, 10-12 and 15 is therefore not novel over D4.

Dependent claims 4-5, 9 do not contain any features which, in combination with the features of claim 1 to which they refer, meet the requirements of the PCT in respect of inventive step, because it is not apparent from the present description what problem is solved by the distinguishing features vis-à-vis the cited documents.